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Occupational engagement may be effective in reducing recidivism among juvenile offenders

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Occupational engagement may be effective in reducing recidivism among juvenile offenders.

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CLINICAL SCENARIO:

Juvenile delinquency is a multi-faceted dilemma. In the United States there were over 6,300 arrests per 100,000 youths in 2008 (US Department of Justice, 2009). Recidivism rates vary substantially geographically. The US Department of Justice (2006) estimated the average rearrest rate amongst the states of Florida, New York, and Virginia to be 55%. Other states show much lower rates; in the same year, re-incarceration of juveniles in Arkansas, Montana, and New Mexico was estimated to be an average of only 12% (p. 234).

Juvenile crime may be attributed to a number of factors and circumstances. A number of juvenile offenders cite boredom as a leading factor in prompting their illegal behavior. Factors that have been identified to be helpful in protecting individuals from juvenile delinquency include strong family support, involvement in positive social activities, school involvement, and feelings of accountability (US Department of Health and Human Services, 2008). It seems reasonable to expect that treatment interventions promoting participation in positive occupations would be useful in decreasing recidivism amongst juvenile offenders; however, research in this area is limited. This creates an excellent opportunity for occupational therapists to use their expertise in the therapeutic use of occupation to address rehabilitation of this population.

FOCUSSED CLINICAL QUESTION:

How does occupational engagement affect recidivism among juvenile offenders?

SUMMARY of Search, 'Best' Evidence' appraised, and Key Findings:

- Five research articles addressing aspects of occupational engagement and recidivism amongst juvenile offenders were critically appraised by this writer.
- The article by Myers, Burton, Sanders, Donat, Cheney, Fitzpatrick, and Monaco (2000) was determined to be the "best evidence". This study looked at the effectiveness that a multimodal after-school treatment program, called Project Back-on-Track, had in reducing recidivism amongst juvenile offenders in Florida. The program was extremely strict on attendance, but was found to reduce recidivism in its participants.
- Farnworth (2000) examined how juvenile offenders living in the community spent their time. Information gleaned from this study identified that the

participants were most often involved in passive leisure occupations such as watching television and listening to music.

- Woodall (2007) identified factors inhibiting positive mental health as perceived by young offenders living in a correctional facility. The study found that in general the environment and occupational structure of a correctional facility does not promote mental health.
- Bullis and Yovanoff (2006) evaluated the transition experiences of youth moving from a correctional facility to the community, focusing on the effect that employment had on that experience. The study found that increased social support and employment services would be beneficial for transitional youth.
- Gillis and Gass (2010) assessed the LEGACY behaviour management model's use of adventure programming amongst a group of juvenile sexual offenders. Individuals receiving adventure-based intervention were significantly less likely to be rearrested compared to groups receiving interventions from other specialized treatment programs or typical treatment at youth development centers.

CLINICAL BOTTOM LINE:

Young offenders present a number of challenges for rehabilitation specialists to address. These youth seem to benefit from a multi-faceted approach to treatment. Recidivism is a dangerous problem that inhibits health and wellness, and also creates a large spending expenditure for taxpayers. Using a treatment approach specifically designed for juvenile offenders, such as Project Back-on-Track, can be a helpful tool in reducing recidivism. This program is a short-term community based treatment program that utilizes a number of intervention types and topics applicable to this population, providing a means to be actively engaged in a variety of occupations. The research on using activity and occupational engagement to reduce recidivism amongst juvenile offenders seems favourable, but more research is needed to identify which occupations may be most effective in using as treatment with this population.

Limitation of this CAT: This critically appraised paper has been compiled by a second year masters of occupational therapy (MOT2) student as a class assignment, and does not encompass an exhaustive literature review. This paper has not been externally peer reviewed, but has been reviewed by a faculty member and a fellow MOT2 student.

SEARCH STRATEGY:

Terms used to guide Search Strategy:

- Patient/Client Group: Juvenile Offenders
- Intervention (or Assessment): Occupational Engagement

- Comparison: N/A
- Outcome(s): Recidivism

Databases and sites searched	Search Terms	Limits used	Results
Medline October, 2011	Adolescent & recidivism & occupation/engagement/ or participation	English language	18 results: 0 used
PubMed October, 2011	Recidivism & juvenile offenders & time use	English language 1995 - 2011	48 results: 0 used
PubMed October, 2011	Recidivism & juvenile offenders & community	English language 1995 - 2011	39 results: 0 used
PsychInfo October, 2011	Athletic participation/participation/ extracurricular activities/activity participation/or leisure time & juvenile/adolescents & offenders/delinquents	English language 1995 - 2011	15 results Farnworth, L. (2000).
PsychInfo October, 2011	Juvenile offenders & delinquency & treatment	English language 1995 – 2011	70 results Myers, W., Burton, P., Sanders, P., Donat, K., Cheney, J., Fitzpatrick, T., & Monaco, L. (2000).
CINAHL October, 2011	Young offenders & leisure	English language 1995 - 2011	3 results: 1 repeat (Farnworth, L., 2000)
CINAHL October, 2011	Young offenders/juvenile offenders & recidivism	English language Academic journals/peri odicals 1995 – 2011	328 results: 1 repeat (Farnworth, L., 2000) Bullis, M. & Yovanoff, P. (2006) Gillis, H. & Gass, M. (2010).
CINAHL October, 2011	Young offenders & mental health	English language 1995 - 2011	63 results Woodall, J. (2007).

INCLUSION and EXCLUSION CRITERIA

- Inclusion:
 - Participants who had been convicted of a criminal offense
 - Participants who were adolescents
 - English
 - Time use, occupation, activity, engagement, participation
- Exclusion:
 - Individuals who were adults
 - Individuals who were not currently in a correctional facility or had not spent time in a correctional facility

RESULTS OF SEARCH

Five relevant studies were located and categorized as shown in Table 1 (based on Levels of Evidence, Centre for Evidence Based Medicine, 1998)

Table 1: Summary of Study Designs of Articles retrieved

Study Design/ Methodology of Articles Retrieved	Level	Number Located	Author (Year)
Cohort (Prospective)	I	2	<ul style="list-style-type: none"> • Gillis, H. & Gass, M. (2010). • Myers, W., Burton, P., Sanders, P., Donat, K., Cheney, J., Fitzpatrick, T., & Monaco, L. (2000).
Cohort (Retrospective)	II	1	<ul style="list-style-type: none"> • Bullis, M. & Yovanoff, P. (2006).
Phenomonology	NA	2	<ul style="list-style-type: none"> • Farnworth, L. (2000). • Woodall, J. (2007).

BEST EVIDENCE

The following study was identified as the 'best' evidence and selected for critical appraisal.

Myers, W., Burton, P., Sanders, P., Donat, K., Cheney, J., Fitzpatrick, T., & Monaco, L. (2000). Project back-on-track at 1 year: a delinquency treatment program for early-career juvenile offenders. *Journal of the American Academy of Child*

and *Adolescent Psychiatry*, 39(9), 1127 – 1134. doi: 10.1097/00004583-200009000-00012

Reasons for selecting this study were:

- Both a control group and a treatment group were evaluated.
- Juvenile offenders in the treatment group were required to spend a notable amount of time actively participating in intervention groups.
- Statistically significant evidence of multimodal treatment program reducing recidivism amongst participants.
- Involved families in treatment program.
- Conducted multiple follow-ups.

SUMMARY OF BEST EVIDENCE

Table 2: Description and appraisal of cohort study Project back-on-track by Myers et al (2000).

Aim/Objective of the Study/Systematic Review:

The objective of this study was to evaluate the effectiveness of a multimodal after-school treatment program, called Project Back-on-Track, in reducing criminal recidivism amongst juvenile offenders.

Study Design:

This cohort study utilized two groups of participants. One group of juvenile offenders went through the treatment program, while the other group of juvenile offenders was released into the community with no additional treatment. Outcomes were measured at 3, 6, 9, and 12 months post-intervention.

Setting:

All interventions took place in the state of Florida. Most treatment sessions were held in a psychiatry outpatient clinic, although some service projects were carried out within the community.

Participants:

Forty-one juvenile offenders were referred for this study. Referrals were sent by the District State Attorney's Office, the State Department of Children and Families, and various other mental health professionals. Participants were required to be early-career offenders. Participants also were required to live in the juvenile justice district where the treatment sessions would be held; this district consisted of eleven counties. The first thirty participants to complete the program made up the treatment group.

Participants were between the ages of 9 and 17, with the mean age being 14.2 years. 63.3% of participants were female. 84.1% of participants had committed violent offenses; the remaining participants had committed various other offenses such as "throwing a deadly missile (4.6%), drug offenses (2.3%), trespassing (2.3%), retail theft (2.3%), violation of injunction (2.3%), and an obscene phone call (2.3%)" (p. 1128). Amongst the thirty participants, forty-four crimes had been committed. Of the thirty participants 63.3% were African Americans, 33.3% white, and 3.3% were Hispanic.

Participants in the treatment group were assessed for psychopathology upon intake. 93% had one or more *DSM-IV* diagnosis. Diagnoses “included conduct disorder (63.3%), attention-deficit/hyperactivity disorder (23.3%), dysthymia (23.3%), social or specific phobias (23.3%), generalized anxiety disorder (20%), major depressive episode (16.7%), oppositional defiant disorder (10%), obsessive-compulsive disorder (10%), marijuana abuse/dependence (10%), alcohol abuse/dependence (6.7%), separation anxiety disorder (6.7%), gender identity disorder (6.7%), and enuresis (6.7%)” (p. 1133).

Of the forty-one juvenile offenders referred, eleven dropped out of the program. Of these, ten were dismissed due to absences; one individual was dismissed for drug related activity during program hours. Those who did not complete the program were more likely to be younger (mean age of 12.8 years) and male (9 out of 11). Nine of these non-completers had been referred due to a non-violent offense.

A control group of thirty participants was formulated once the treatment group was identified. Participants who were similar in age, gender, and ethnicity were chosen. These individuals were also early career offenders and displayed similar data regarding age of first arrest, violent charges, and number of arrests as the treatment group.

Information on each participant was obtained for follow-ups at 3, 6, 9, and 12 months.

Intervention Investigated

Project Back-on-Track was a 4-week long treatment program consisting of multiple treatment types. This program utilized family and group interventions. Participants were required to maintain consistent attendance for the duration of the 4 weeks. Treatment groups were held after school 4 days a week and sessions lasted 2 hours. In the course of the program it was required that a parent or guardian of each participant attended 15 hours of treatment. If a guardian or youth were absent for a combined total of more than 3 hours then the youth was dismissed.

Interventions were provided by a treatment team consisting of psychiatrists, occupational therapists, program/family coordinators, psychologists, recreational therapists, and social workers. Treatment interventions targeting youth included group sessions on anger management, communication skills, self-esteem groups, assertiveness skills training, stress management, diversity awareness, alcohol/drug education, and community service projects. A six hour group specific to parents and guardians was led by an occupational therapist and addressed parenting. Treatment interventions geared towards both parent/guardian and youth included multifamily groups and a family life and stress management skills group. Most groups were facilitated by two staff members. All staff, participants, and family/guardians were involved in orientation, intake interviews, and a graduation ceremony.

Outcome Measures

The primary outcome measure evaluated by this study was recidivism as identified by rearrest rates and number of offenses. This data was tracked by the Department of Juvenile Justice in Florida.

Financial aspects were also evaluated to determine the cost of implementing Project Back-on-Track in relation to its potential to reduce criminal activity. At the one year follow-up, the estimated costs of crimes committed during the year were added and compared to the cost of providing Project Back-on-Track treatment per each participant.

Main Findings:

The number of youths with offenses committed during the 12 months was compared using a single-factor ANOVA test. Participants who completed the Project Back-on-Track program were compared to the community control group. The ANOVA was statistically significant at the 12 month follow-up ($p = .028$).

After 1 year, Project Back-on-Track participants had committed 3 crimes since completing the program, whereas the community control group had committed 21 crimes in that 1 year period.

Participation in Project Back-on-Track cost \$600 per youth. Crimes committed by youth in both the treatment and community control groups during the 1 year until follow up cost an average of \$3,000 per crime. Based on the data from this study alone, it can be estimated that approximately \$1,800 is saved per youth after one year by implementing Project Back-on-Track treatment.

Original Authors' Conclusions

This study concluded that Project Back-on-Track is an effective intervention in reducing criminal recidivism amongst early-career juvenile offenders, as well as in reducing costs associated with continued criminal activity. Multi-modal short-term programs that are community based may be an effective and cost efficient method of treatment.

Critical Appraisal:

This study provided a good appraisal of an intervention program that was effective in reducing recidivism amongst early-career juvenile offenders. This study does not address the participants' lived experience or personal feelings regarding the program. Furthermore, a number of interventions were provided throughout the program. It would be of interest to interview participants to determine what aspects of the program were most helpful to them. It is not noted if individuals in the community control were receiving any treatment. Also, there is no information regarding presence or prevalence of Axis I diagnoses amongst the community control group. Such factors may have skewed the results. Only individuals who were able to commit to 32 hours of intervention were included in the treatment group; they also had to have a willing guardian commit to attending at least 15 hours of intervention. Placing such a requirement could bias the results as perhaps these individuals would be less likely to commit additional crimes as they demonstrate having a supportive guardian and show that they are willing to commit time to treatment. An additional limitation of the study includes that the sample was not uniformly randomized.

Validity

Subsequent arrests and crimes were consistently reported and obtained through Florida's Department of Juvenile Justice.

Financial ramifications were estimated by identifying cost of implementing Project Back-on-Track per participant, as contrasted by approximate costs of criminal offenses. It is noted that various offenses may cost differing amounts, so an average total crime cost of \$3,000 per crime was utilized based on previous data regarding cost of law enforcement, court costs, and other such expenses related to criminal offenses.

Interpretation of Results

At one year follow up, Project Back-on-Track participants demonstrated reduced recidivism as compared to the community control group. Significantly less money was spent on providing Project Back-on-Track treatment for participants than estimated costs related to criminal offenses committed by the community control group during the subsequent year.

Summary/Conclusion:

Juvenile offenders oftentimes display a number of different behaviors that treatment interventions should address. Individuals should be treated holistically, and all aspects of their character should be taken into account. Implementing a multi-modal treatment plan can be an efficient and effective way to reduce criminal recidivism. Utilizing a number of professionals from different fields can encourage fresh perspectives. It is important for participants to take an active role in their treatment. Programs should use active activities and promote positive occupational engagement. Implementing family members in the treatment program may increase effectiveness and help promote a positive support system that may continue upon program completion.

Table 3: Characteristics of included studies

Study	Intervention investigated	Comparison intervention	Outcomes used	Findings
Farnworth, L. (2000). Time use and leisure occupations of young offenders. <i>American Journal of Occupational Therapy</i> , 54(3), 315 – 325.	This study in Australia explored how juvenile offenders living in the community use their time.	Informally compared to non-offending youth of similar age based on information from the Australian Bureau of Statistics.	Experience Sampling Forms, initial interview, and follow-up interview with each participant.	The study identified that participants were mostly involved in passive leisure occupations, followed by personal care occupations. It was identified that the participants spent their time very differently than the comparison group, which was much more involved in education, work, and social leisure activities.
Woodall, J. (2007). Barriers to positive mental health in a young offenders institution: a qualitative study. <i>Health Education Journal</i> , 66(132). Retrieved from	This study examined potential barriers to positive mental health in a juvenile correctional facility.	No comparison intervention was utilized.	Focus groups and one-on-one interviews.	Many aspects of the institutional setting were identified as detrimental to positive mental health. Participants expressed that their typical setting did not allow them to feel comfortable sharing their feelings, and they felt isolated from friends and family. Participants identified time spent with family as especially happy, but adjusting

http://hej.sagepub.com/content/66/2/132 .				directly afterwards was extremely difficult. The study concluded that although promoting mental health may not be the ultimate goal of a prison, the importance of positive mental health should not be ignored; currently there are clear obstacles to facilitating positive mental health in the institutional setting.
Bullis, M. & Yovanoff, P. (2006). Idle hands: community employment experiences of formerly incarcerated youth. <i>Journal of Emotional and Behavioral Disorders</i> , 14(2), 71 – 85.	This study aimed to look at the transition experiences of youth moving from a correctional facility to the community, focusing on the effect that employment had on that experience. This aspect of the study was part of the larger study utilizing Transition Research on Antisocial Youth in Community Settings (TRACS) participants.	No comparison intervention was utilized.	Initial interview, as well as follow up interviews at 6 months and 12 months. Outcome areas looked at were return to Oregon Youth Authority and employment.	This study found that very few participants returned to school or received social services upon re-entering the community. Participant employment was found to not necessarily be statistically significant related to return to a correctional facility, but positive aspects of employment were noted.
Gillis, H. & Gass, M. (2010). Treating juveniles in a sex offender program using adventure-based programming: a matched group design. <i>Journal of Child Sexual Abuse</i> , 19(1), 20-34.	This study evaluated the effect of an adventure-based behavior management program, LEGACY, on recidivism amongst juvenile sexual offenders.	Compared to other male juvenile offenders of similar age in the state of Georgia. Two comparison groups were used; one group received typical treatment protocol, and the other group received other specialized	Rearrest rates were assessed 1, 2, and 3 years after release from treatment; length of time between release and rearrest dates was also noted.	Individuals who participated in the LEGACY program presented a significantly lower rearrest rate than the other two groups when compared at 2 and 3 years. Rearrest rate for violent sexual offenses were similar amongst all three groups. Participant involvement in elements of a program such as LEGACY may be effective in reducing

		intervention programs.		recidivism.
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IMPLICATIONS FOR PRACTICE, EDUCATION and FUTURE RESEARCH

- The population of juvenile offenders encompasses a wide variety of individuals of different backgrounds, diagnoses, crimes, and resources.
- Currently, treatment of juvenile offenders varies greatly and there is little consistency. No “best treatment” has been established.
- Research identifies that young offenders spend their time differently than their non-offending peers, predominately engaging in passive leisure activity, as opposed to active leisure, school, and employment related activities.
- Environment can positively or negatively affect mental health. It is important to foster an environment that promotes positive mental health, both within correctional institutions and through transitional treatment services.
- Social support can positively or negatively affect mental health. Implementation of positive social support groups in which participants feel comfortable sharing and participating may nurture positive mental health.
- Engaging young offenders in positive activity alongside their peers may reduce recidivism and encourage healthy social participation.
- Families should be involved in treatment as much as possible to help develop stronger positive social support.
- There is potential for increase of occupational therapy services within juvenile correctional facilities and transitional treatment programs.
- Occupational therapy can address the need for positive occupational engagement amongst juvenile offenders and identify appropriate methods to foster increased participation.
- Use of occupation can be used to promote social, coping, communication, relaxation, and job skills.
- An Innovative Practice Project (IPP) could be created to address occupational engagement amongst juvenile offenders in local correctional facilities or receiving local transitional services.
- Interdisciplinary treatment and collaboration should be encouraged and utilized.
- Clinicians should be educated on the needs of juvenile offenders.
- Therapists should receive education regarding what treatments are currently used among juvenile offenders.
- Further research is needed to compare intervention methods and various treatments used among juvenile offenders.
- Both qualitative and quantitative studies to explore recidivism statistics as well as perceived well-being as a result of treatment interventions should be conducted.

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